

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Massoud Kayvanjah and Chris Walling

GENERAL INFORMATION:

Name:	Kingsford Manufacturing Company
Address:	9500 South Highway 27 Burnside, KY 42519
Date application received:	5/5/2008
SIC Code/SIC description:	2861, Charcoal manufacturing
Source ID:	21-199-00018
Agency Interest:	3816
Activity:	APE20080001
Permit:	V-08-016

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input type="checkbox"/> Title V
__Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input checked="" type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☐ Certified by responsible official
- ☐ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM	375	492
PM ₁₀	133.5	334
VOC	213	494
CO	32	38.5
SO ₂	192	212
NO _x	377	453

SOURCE DESCRIPTION:

On May 5, 2008, Kingsford Manufacturing Company (KMC) at Burnside applied to the Division for the renewal of their permit V-03-018 R3. KMC manufactures charcoal briquets mixed with additives (Limestone, Starch, and Solvent).

The facility is classified as a Title V major source of air pollution based on emission greater than 100 tons per year of particulate matter less than 10 micrometers (PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), and volatile organic compounds (VOC).

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

Pursuant to 401 KAR 51:017, total volatile organic compound emissions from emissions units 07, 08, and 09 shall not exceed 51.9 lbs/hour averaged on a daily basis and 169.3 tons in any consecutive twelve months period. The permittee may assure compliance with this emission limitation by demonstrating compliance with the solvent usages rate as defined in the permit.

Pursuant to 401 KAR 51:017, the wet wood dryer and retort furnace shall be operated with a maximum of 80% of emissions going out the ACC stack and a minimum of 20% of emissions cycling to the briquets dryers and waste heat boiler. Emissions into the open air from the ACC stack shall not exceed the following limits:

- 1) 60.60 lbs/hr of PM
- 2) 48.48 lbs/hr of PM₁₀
- 3) 92.71 lbs/hr of NO_x
- 4) 24.24 lbs/hr of SO₂
- 5) 7.13 lbs/hr of VOC

Under circumstances when 20% of the total flow of emissions cannot be diverted to the briquets dryers (greater than 80% of total flow out the ACC stack), the maximum throughput of wet wood to the rotary dryer shall not exceed 62.6 tons/hr, and the maximum throughput of dry wood to the retort furnace rate shall not exceed 31.3 tons/hr to comply with KAR 59:010.

Pursuant to 401 KAR 59:010, under operating conditions with greater than 80% of the emissions

going out the ACC stack, the process rate shall be limited so that the particulate matter emissions into the open air shall not exceed:

Combined Allowable Rate of PM Emission in lb/hr = $17.31(P_1)^{0.16} + 17.31(P_2)^{0.16} = 63.02$ lb/hr
where the max $P_1 = 62.6 - (0.1)(62.6) = 56.34$, assuming 10% uncombined moisture in wet wood
and the max $P_2 = 31.3$, from the combined emissions in the ACC unit.

Controls are to be operated at all times. The ACC combustion chamber shall be operated with an average (3-hour average) temperature greater than 1400°F.

OPERATIONAL FLEXIBILITY: NONE